

[U.S. Application Serial No. 09/108,463

IN THE CLAIMS:

[Please amend claims 26, as follows:

21. (previously presented) A method for sending an IP packet to a physical end node comprising the steps of:

creating the IP packet comprising:

a virtual internet protocol address corresponding to a plurality of physical end nodes served by a first access point; and

a data field comprising:

a destination identification corresponding to one of the physical end nodes of the plurality of physical end nodes, said one of the physical end nodes being a destination for the IP packet; and

user data;

communicating the IP packet to a first access point, serving a plurality of physical end nodes, over an RF network including one or more access points, communicatively coupled to one another, wherein at least some of the access points, each, serve one or more physical end nodes, via one or more wireless communication links, and one or more of the access points are connected to a wired network;

transmitting, by the first access point, the IP packet;

decoding, by the plurality of physical end nodes served by the first access point, the data field of the IP packet for determining the destination identification of the IP packet; and

determining by each of the plurality of physical end nodes whether it is the destination for the IP packet.

22. (previously presented) The method of claim 21 wherein the step of determining is accomplished by each of the physical end nodes comparing their own identity with the destination identification in the user data of the IP packet.

23. (previously presented) The method of claim 21 further comprising the step of:

processing the IP packet by the physical end node that is the destination for the IP packet.

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~~4~~ 24. (previously presented) The method of claim ~~21~~ further comprising:
determining by the plurality of physical end nodes that are not the destination of the packet that the IP packet is not for them.

~~5~~ 25. (previously presented) The method of claim ~~24~~ further comprising:
ignoring the IP packet by the physical end nodes that are not the destination of the packet.

~~6~~ 26. (currently amended) The method of claim ~~21~~ wherein the step of sending communicating is accomplished by using internet protocol routing.

~~7~~ 27. (previously presented) The method of claim ~~21~~ wherein the step of transmitting by the access point is transmitting by the access point via a wireless link.

~~8~~ 28. (previously presented) A RF network comprising:
a wired network;
a first access point operable for communication via a first wireless link;
a first plurality of physical end nodes communicating with the first access point via the first wireless link, sharing a first virtual internet protocol address and, each, having a separate destination identification included within a data field of any IP packets intended for the corresponding physical end node; and
a second access point connected to the wired network and to the first access point via a second wireless link.

~~9~~ 29. (previously presented) The RF network of claim ~~28~~ further comprising:
a second plurality of physical end nodes communicating with the second access point via the second wireless link, sharing a second virtual internet protocol address and having separate identifications.